INTERNATIONAL FORMULA 18 CLASS
MEASUREMENT FORM
MEASUREMENT CERTIFICATE
I F18CA-2019 (version PCB2019/06)

IDENTIFICATION

Boat Certificate n°	**FRA 2020-003**	*National letters & Sail N° :*	FRA 83032	*WS N° :*	1 207
Hulls N° / N° coques :	PL EXP18018A020	*Hulls N° / N° coques :*	PL EXP18018A020		
Brand of boat :	EXPLODER SCORPION			*Date manufactured :*	2020

OWNER

owner / propriétaire :	YACHT CLUB DE TOULON		
Address / adresse :			
Zip code / CP :		City / ville :	
Country / Pays		*E-mail*	

MEASURES & DESCRIPTION OF THE PLATEFORM

C.6.1.(b) (1) Weight boat ready to sail :		178,200 kg	180 kg minimum
C.6.2.(a) Corrector weight		1,800 kg	7 kg maximum
D.6.2.(a) Hull lenght / Longueur coque		5,52 m	5,52 m maximum
D.6.2.(b) Boat beam / Largeur plateforme		2,60 m	2,60 m maximum
C.7.1.(b) Inspection hatches / trappes	Minimum 1 per hull	2	
D.3.1.(a) Material	Polyester		
D.5.1.(a) Trampoline material	Mesh		Netting is not permited

B.1.1.(c) have valid certification mark is required : hull — *Port side hull* ☑ *starboard side* ☑

DAGGERBOARDS & RUDDERS

	Port side	*starboard side*	
C.8.2.(a)(1) Daggerboards serial n° :	Sans	Sans	
E.3.4.(a) Daggerboards weight	4,400 kg	4,300 kg	5,5 kg maximum
E.3.3.(c) Daggerboards extension below the hull	1,39	1,39	1,40m maximum
B1.1.(c) Daggerboard certification mark F18	☑	☑	
C.8.2. Rudders serial n° :	Sans	Sans	
E.4.6.(a). Rudders weight	3,000 kg	3,000 kg	Minimum 3 kg
B1.1.(c) Rudder certification mark F18	☑	☑	

RESERVED NATIONAL CLASS ASSOCIATION

Initial boat certification ☑ *Certification control carried by* Bernard Marcellin *Date* 04/07/2020

Boat re-certification n° 0 *For main sail :* ☐ *jib* ☐ *Spinnaker* ☐ *Platform* ☐ *Other* ☐

Certification Authority

Complementary comments of the measurer

EQUIPEMENTS

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C.5 PORTABLE EQUIPMENT

C.5.1(a)1 One righting line	4.2	Minimum 4m. long
	0.01	Minimum Ø 10mm
C.5.1(a)2 One magnetic steering compas	1	Minimum One

C.9 RIG

C.9.2(a) Mast datum point shall not be more than 120mm above the top of the front bear	100
C.9.7(a) Running rigging shall be led outside the mast spar	OK

D.4 BEAMS

D.4.2(a) The beams shall be extruded aluminium profiles of constant section	OK
D.4.2(b) The curvature of the beams shall be limited a maximum of 15mm	OK

F.3 MAST

F.3.2(a) The mast shall be extruded aluminium profiles of constant section		OK	
F.3.3 Dimensions	*Mast spar circumference*	0,380 m	*0,385 m Maximum*
	Distance between upper point and front beam	9,100 m	*9,100 m Maximum*
	Shround height	6,750 m	*6,750 m Maximum*
	Spinnaker hoist height	8,145 m	*8,150 m Maximum*
	Top of the front beam to mast datum point	100	
	Extrusion total lenght	9,100 m	
B.1.1(c) Have valid certification marks as required		☐	

F.4 BOOM

F.4.1(a) The Boom, if fitted,	*Yes or no*	☑
F.4.1(a) shall be made and extruded aluminium profiles of constant section		OK

F.5 BOWSPRIT

F.5.1(a) The bowsprit shall be on the longitudinal centreline of the boat				OK
F.5.1(b) The bowsprit shall be attached to the front beam				OK
F.5.2(a) The bowsprit shall be made of aluminium of constant section				OK
F.5.5(a) The lenght of the bowsprit shall not excedeed the distance from the centre of the front beam to a vertical line touching the most forward part of the hull plus 800 mm, with the bbowsprit mesuread when vertical.				OK
F.6.2(b) (2) The bowsprit bridles may be of rope of minimum diameter 2,5mm				3
Dimensions :	Diameter Ø	0,040 m/m	*Length*	3,720 m
C.9.5(c) The bowsprit shall have an end cap that is smooth, rouded				OK

F.6 STANDING RIGGING

F.6.1(a) The standing rigging of the stanless steel		☑
F.6.2(a)(1) A forestay and bridles mini 4mm		☑
F.6.2(a)(1) Shrouds	*mini 4mm*	☑
F.6.2(a)(3) Trapeze wires	*mini 2,5mm*	☑

F.7 RUNNING RIGGING

F.7.2(a)(1)(2) Mainsal halyard & sheet	☑
F.7.2(a)(3)(4) Jib halyard & sheet	☑
F.7.2(a)(5)(6) Spi. halyard & sheets	☑
F.7.2(a)(7) Spi. Retraction lines	☑

Complementary comments of the measurer

MEASURES AND CALCULATIONS AREA OF JIB & SPINNAKER

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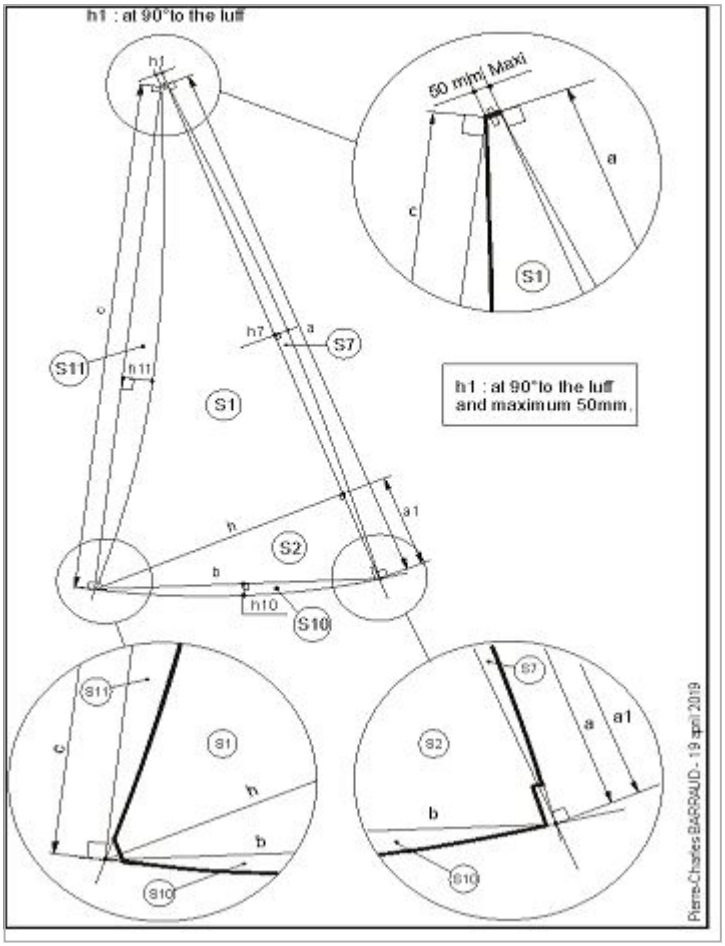


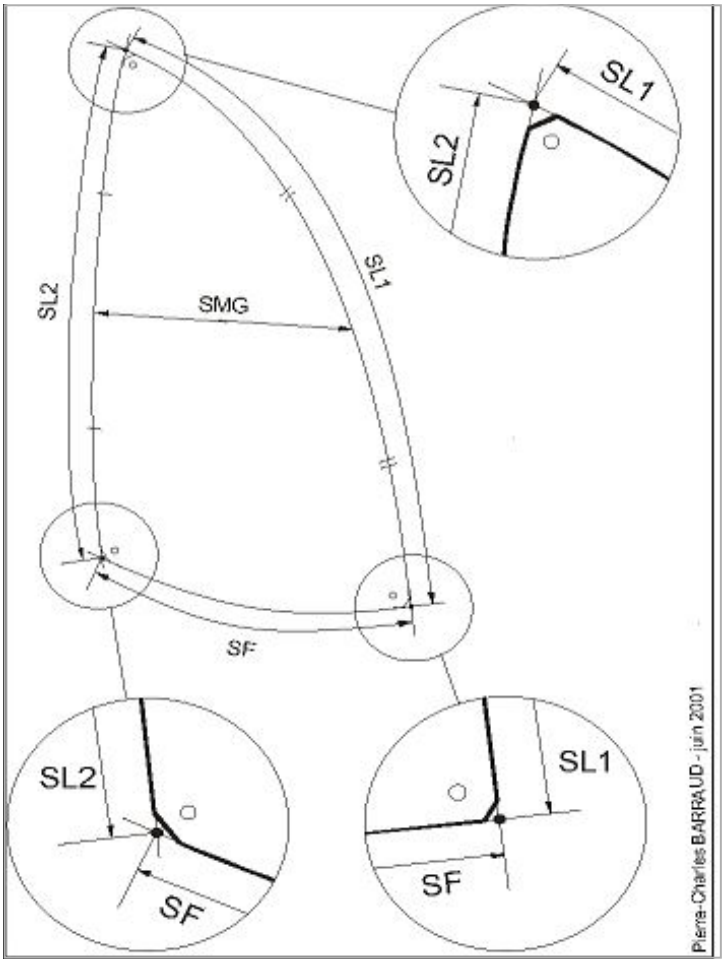
G.4 JIB

Small Jib 3,60 m2	☐	***Large Jib 4,30 m2***	☑
Sailmaker / Voilier :	ONE DESIGN		
Serial n° / N° série :	141220		
Colour / Couleur :	BLANC		
Batten number :	3	G.4.2(d)(2) maximum 3	
Material / Matériau :	APEN 6 3 mil		

h1	0,045	S1=((h+h1)x(a-a1))/2	4,2980
a	5,900	S2=(hxa1)/2	0,2235
h7	0,000	S7=((axh7)/3)*2	0,0000
c	5,725	S10 : 2/3bxh10	0,0184
h11	-0,070	S11 : 2/3 cxh11	-0,2672
h	1,490		
a1	0,300	**JIB AREA**	
b	1,535	**Small Jib 3,60m2**	**4,273**
h10	0,018	**Large Jib 4,30m2**	

G.4.2 Construction & G.4.3 Dimensions

		Max
The Leech shall not be convex	OK	
Top width	45mm	*50mm*
Batten width	30mm	*40mm*
Batten pocket outside width	50mm	*80mm*
Window area : minimum : 0,30 m2	0.31	
Dacron sticker F18 Small Jib 3,60m2	☐	
Dacron sticker F18 Large Jib 4,30 m2	☑	



G.5 SPINNAKER

Small Spinnaker 19,00m2 maximum	☐
Large Spinnaker 21,00m2 maximum	☑
Sailmaker / Voilier :	ONE DESIGN
Serial n° / N° série :	170420
Colour / Couleur :	Rouge
G.5.1 Material / Matériau :	Maxikote 100

SL1	8,887	% SMG / SF	75,47
SL2	7,777	**Spinnaker AREA**	**20,594**
SMG	2,785		
SF	3,690		
Dacron sticker F18 spinnaker 19,00 m2			☐
Dacron sticker F18 spinnaker 21,00 m2			☑

RESERVED NATIONAL CLASS ASSOCIATION

Certification control carried by	*Date*
Bernard Marcellin	04/07/2020
Certification Authority	

MEASURES AND CALCULATIONS THE MAINSAIL CLASSIC OR DS

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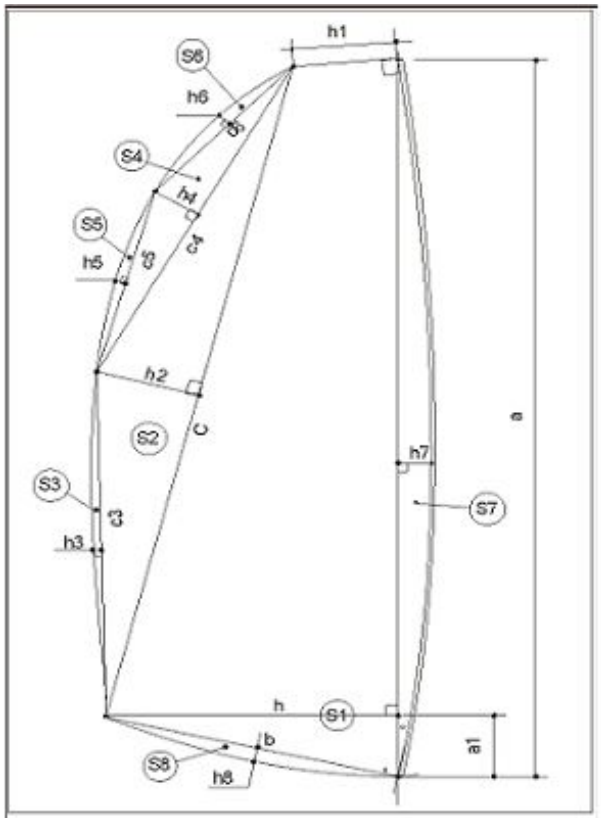

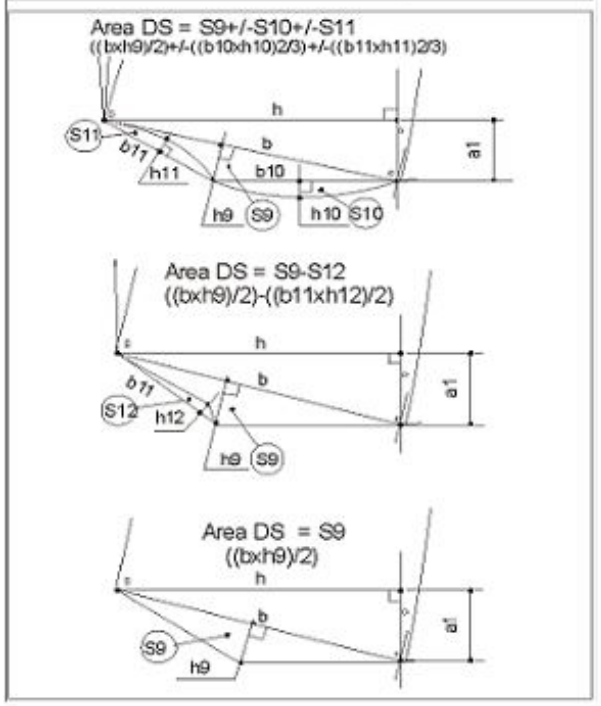

MAST AREA

Length extrusion	9,100	Perimeter	0,380

G.3 MAIN SAIL : 17 m maximum

Sailmaker / Voilier :	ONE DESIGN
Serial n° / N° série :	150320
Colour / Couleur :	BLANC
Batten number :	3
G.3.2 Material / Matériau :	APEN 6 3 mil

a	9,050	S1 : ((h+h1)(a-a1)+(a1xh))/2	12,8321
h7	0,120	S2 : (cxh2)/2	0,7605
c	8,005	S3 : 2/3 c3xh3	0,1120
h2	0,190	S4 : (c4xh4)/2	0,0802
c4	4,012	S5 : 2/3 c5xh5	0,0201
h4	0,040	S6 : 2/3 c6xh6	0,0268
c6	2,010	S7 : 2/3 axh7	0,7240
h6	0,020	S8 : 2/3 bxh8	
c5	2,010	S9 : (b*h9)/2	0,6000
h5	0,015	S10 : ((b10*h10)/3)*2	
c3	4,000	S11 : ((b11*h11)/3)*2	
h3	0,042	S12 : -(b11*h12)/2	
h	2,110	***Main Sail AREA***	**15,156**
b	2,400		
h8	0,000	Mast area / Surf. Du mât :	**1,729**
a1	1,088	**Total AREA**	**16,885**
h1	0,825		

h9	0,500
b10	0,000
h10	0,000
b11	0,000
h11	0,000
h12	0,000

h1 and h being parallel and perpendicular to the main luff, the main area is a trapezium and a right-angled triangle.
h2 and h4 are perpendicular to the middle point between c and c4.
H3, h5, h6, h7 and h8 are respectively the cambers of the cords c3, c5, c6, a and b.
h10, h11 can be positive, negative or equal to zero.

G.3.5 DIMENSIONS

		Max
Top width excluding boltrope	0.825	*1,00 m*
Upper wight at upper leech point 1500mm from the head point	1.125	*1,29 m*
The angle between the luff ans the head	>90°	*90°*
Tabling width	0.055	*115mm*
Window area : minimum : 0,30 m2	0.82	

B.2 CERTIFICATION MARKS F18

Dacron sticker F18 main sail 17,00 m2	☑
Class emblem F18	☑

Certification control carried by Bernard Marcellin

Date 04/07/2020

Certification Authority